

# Attunity Connect Installation Guide

**OS/400**

Version 4.1



## ***Attunity Connect Installation Guide for OS/400***

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# OS/400 Installation

## Requirements

The following are the hardware and software you need in order to run Attunity Connect on the IBM AS/400 platform:

**Machine** – Any IBM AS/400 machine

**Disk Space** – 60 MB

**Operating System** – OS/400 V4R5 and higher.

**Software** – Optionally, AS/400 ILE Tools. For example, if you are running C, you require the 5769CX2 \*COMPATIBLE ILE C (the C language environment and runtime libraries).

- ❖ Additionally, if the QShell is installed, access to Attunity Connect files using UNIX commands is possible. The QShell provides the AS/400 with a UNIX type environment, which is used by Attunity Connect. For details about accessing files from the UNIX side, without installing the QShell, see "Working with Attunity Connect Files" on page 11.

## Pre-Installation

Before installing Attunity Connect on the AS/400 system, you must complete the following steps:

1. Access the AS/400 system using the "Qsecofr" account.
2. Ensure that you have following special authorities:
  - \*JOBCTL
  - \*ALLOBJ
  - \*SERVICE
  - \*SPLCTL
3. Set Local Parameters according to the following attributes:
  - Set the CCSID to 65535.
  - Set the LANGID to ENU.

These parameters can be set back to their previous values after installation.

4. Obtain the ac4100-as400.zip zip file from either CD or FTP, and transfer it to a PC.

5. Unzip the zip file. This file contains the following:
  - A readme.txt file, containing installation requirements and instructions
  - The AC4100SAV member
6. On the AS/400, select or create a library that will contain a save file where the AC4100SAV member will reside.
7. Create a new save file named AC4100SAV in this library by using the following command:  
  

```
QSYS/CRTSAVF FILE(library_name/AC4100SAV)
```

  
where *library\_name* is the name of the library you selected or created in the previous step.
8. Using FTP, transfer AC4100SAV to *library\_name*/AS4100SAV.

## Upgrade Installation

When upgrading, before doing the installation, backup Attunity Connect repository entries, as follows:

```
call pgm(navutil) parm(EXPORT ALL SYS 'out.xml')
```

where *out.xml* is the name (including path) of an XML file where the SYS definitions will be written.

Run the following for every data source accessed by Attunity Connect:

```
call pgm(navutil) parm(EXPORT ALL dsname 'dsout.xml')
```

where *dsname* is a data source name, as defined in the binding configuration and *dsout.xml* is the name (including path) of an XML file where the data source definitions will be written.

Install the new version of Attunity Connect in a directory other than that of the existing version.

## Installation

If you set up a subsystem, to run Attunity Connect, it is recommended to set the Max Active parameter under the Job Queue Entries to NOMAX, thus enabling Attunity Connect to control the number of servers started from this queue.

To install Attunity Connect on an AS/400, complete the following steps:

1. Extract the installation program, as follows:

```
RSTOBJ OBJ(INSTALL) SAVLIB(saved_library) DEV(*SAVF)
OBJTYPE(*PGM) SAVF(library_name/AC4100SAV)
RSTLIB(library_name)
```

where:

*library\_name* is the name of the library you selected or created in step 4 of the pre-installation, above.

*saved\_library* is the name of the library specified in the save file (such as AC4100LIB). Display the save file objects to check what the *saved\_library* name is.

2. Add the library to the Library List, as follows:

```
ADDLIBLE library_name
```

where *library\_name* is the name of the library you selected or created in step 4 of the pre-installation, above.

3. Run the installation program by executing the following:

```
CALL INSTALL
```

The installation program prompts you for information:

- The library where Attunity Connect will be installed.
- The name of the account that Attunity Connect will use.
- A valid user name to administer this machine from Attunity Connect Studio. The administrative rights can be changed from within Attunity Connect Studio after the installation or on this machine using NAV\_UTIL ADD\_ADMIN as described in *Attunity Connect Reference*.
- ❖ After completing the installation, you must exit the current session and start a new session.

## Post-Installation

The following procedures are performed after a successful installation to configure Attunity Connect:

- Defining the Library where Attunity Connect is Installed
- Defining the NAVROOT Environment Variable
- Starting the Attunity Connect Daemon
- Registering Attunity Connect
- Setting the Language

Additionally, if the installation is an upgrade from a previous version, the following upgrade procedure is performed:

- Upgrading Attunity Connect from a Previous Version

### Defining the Library where Attunity Connect is Installed

Before every AS/400 session, you must define to the system the library where Attunity Connect is installed. To do this, you run the following command:

```
ADDLIBLE library_name
```

where:

**library\_name** – is the library where Attunity Connect is installed.

### Defining the NAVROOT Environment Variable

Define the environment variable "NAVROOT" to the library where Attunity Connect is installed. Run the following command:

```
WRKENVVAR
```

If the NAVROOT environment variable is not defined to the library where Attunity Connect is installed, run the following command:

```
ADDENVVAR ENVVAR (NAVROOT) VALUE (library_name)  
LEVEL (*SYS)
```

where:

**library\_name** – is the library where Attunity Connect is installed.

**Starting the Attunity Connect Daemon**

The Attunity Connect IRPCD daemon must run on the AS/400 for client/server access to Attunity Connect.

- **To start the Attunity Connect daemon on the OS/400 platform, run the following command:**

```
SBMJOB CMD(CALL PGM(IRPCD) PARM(START))
```

Or:

```
SBMJOB CMD(CALL PGM('library_name/IRPCD')
PARM(START))
```

- ❖ If you don't succeed in starting the daemon, check the log file by running the following command:  
EDTF '/library\_name/tmp/irpcd.log'

**Registering Attunity Connect**

You need to register the copy of Attunity Connect before you can access data sources on this machine, other than Attunity Connect demo data. To use Attunity Connect you must have a Product Authorization Key (PAK) file, called *license.pak*. A PAK is normally supplied by the Attunity Connect vendor. It contains details such as the product expiration date (if any), the maximum number of concurrent sessions allowed, which drivers you are authorized to use, and other information. The PAK is supplied to you in electronic form, and you must register it before you can use the product.

- **To register a Product Authorization Key:**

1. Save the license to a file with an extension other than PAK (such as *license.txt*). This prevents the current license from being manually overwritten.

You can upload the license, in ascii mode, as in the following example (using the Windows ftp client, to an **existing** library called *ac*):

```
ftp> asc
200 Representation type is ASCII nonprint.
ftp> quote crts file(ac/license) rcdlen(240)
250 Source physical file created.
ftp> put license.txt ac/license
200 PORT subcommand request successful.
150 Sending file to member LICENSE in file LICENSE
in library AC.
250 File transfer completed successfully.
ftp: 914 bytes sent in 0.02Seconds 45.70Kbytes/sec.
ftp>
```

- ❖ The quote command is used to define the physical source file so that the uploaded license file will be readable by Attunity Connect. You can also

allocate the file beforehand, on the AS/400 machine, using the "CRTSRCPF" command.

2. Make sure that NAVROOT has been defined (see "Defining the NAVROOT Environment Variable" on page 6).
3. Run the following command:

```
CALL PGM(NAVUTIL) PARM(REGISTER 'license')
```

where *license* is the full name including the path of the license file, starting with the OS/400 file system root (qsys.lib). For example, assuming the license file was copied to the ac library:

```
call pgm(navutil) parm(register  
'/qsys.lib/ac.lib/license.file/license.mbr')
```

You now have the new license file (license.pak) residing in the DEF directory under the directory where you installed Attunity Connect.

This procedure registers a new license or updates an existing license on this machine.

You can display the license details by running the following command on the AS/400 machine:

```
call pgm(navutil) parm(check license)
```

The following type of information is returned:

Active licensed items are:

```
APIs: All  
Providers: All  
Features: All  
Options: None  
Concurrent Users: 100  
Press ENTER to end terminal session.
```

- ❖ You can register this machine from a PC by running the following:

```
nav_util register license daemon_location
```

where *daemon\_location* is the location of the AS/400 machine.

To register the license from a PC, the daemon on the AS/400 must be running.

**Setting the Language** National Language Support (NLS) is provided by Attunity Connect for the following languages:

- English (the default)
- Hebrew
- Japanese



- Korean
- Simple Chinese
- Traditional Chinese

The language is specified via the following Attunity Connect environment settings:

- language
- codepage

For full details of NLS, refer to "National Language Support (NLS)" in *Attunity Connect Reference*.

► **To define the language and codepage environment settings:**

1. Run the following command:

```
call pgm(navutil) parm(edit bindings)
```

The XML representation of the Attunity Connect binding information is displayed, including XML similar to the following:

```
<environment name='NAV'>
  <misc codePage=' ' language=' ' />
  <queryProcessor/>
  <optimizer goal='none' preferredSite='server' />
  <transactions/>
  <odbc/>
  <oledb/>
  <tuning/>
</environment>
```

2. In the language field (bolded in the above XML), specify one of the following for the language required, or leave blank for English):

**HEB** – Hebrew

**JPN** – Japanese

**KOR** – Korean

**SCHI** – Simple Chinese

**TCHI** – Traditional Chinese

3. Optionally, in the codePage field (bolded in the above XML), specify the codepage required.

You can skip this step, and just specify a language (see the previous step). In this case, a default codepage is used. The following shows the default codepages:

**HEB** – IW8EBCDIC424

**JPN** – JA1616DBCS

**KOR** – KO16DBCS

**SCHI** – ZHS16DBCS

**TCHI** – ZHT16DBCS

When running Attunity Connect on an AS/400 machine, using a European Language (such as French), define an environment variable called ACLANG, with the following structure:

*euro:name\_of\_codepage*

For example, to set an AS/400 machine to use French, set the ACLANG variable as follows:

euro:F8EBCDIC297

The following lists the supported codepages according to language:

Language	Supported Codepage Values	Description
European	D8EBCDIC273	EBCDIC codepage 273 8-bit Austrian German
	DK8EBCDIC277	EBCDIC codepage 277 8-bit Danish
	S8EBCDIC278	EBCDIC codepage 278 8-bit Swedish
	I8EBCDIC280	EBCDIC codepage 280 8-bit Italian
	WE8EBCDIC284	EBCDIC codepage 284 8-bit Latin American/Spanish
	WE8EBCDIC285	EBCDIC codepage 285 West European
	F8EBCDIC297	EBCDIC codepage 297 8-bit French
	WE8EBCDIC500	EBCDIC codepage 500 West European
Hebrew	IW8EBCDIC424	EBCDIC codepage 424 8-bit Latin/Hebrew (new EBCDIC)
	IW8EBCDIC806	EBCDIC codepage 806 8-bit Latin/Hebrew (old EBCDIC)
Japanese	JA16DBCS	IBM EBCDIC 16-bit with Latin characters
	JA16EBCDIC930	IBM DBCS codepage 390 16-bit <sup>a</sup>
Korean	KO16DBCS	IBM EBCDIC 16-bit
Simple Chinese	ZHS16DBCS	IBM EBCDIC 16-bit Simple Chinese

Language	Supported Codepage Values	Description
Traditional Chinese	ZHT16DBCS	IBM EBCDIC 16-bit Traditional Chinese

a. This codepage has no encoding for lowercase Latin letters. All resources should be defined in uppercase.

#### Upgrading Attunity Connect from a Previous Version

Import all the XML files exported prior to doing the installation, as described in "Upgrade Installation" on page 4. Run:

```
call pgm(navutil) parm(IMPORT 'xml_file_name')
```

where *xml\_file\_name* is the name (including path) of an XML file where the exported information was written.

## Working with Attunity Connect Files

Attunity Connect uses the UNIX like part of the OS/400 operating system. To access files under UNIX you can use the QShell that is included as part of the OS/400 kit. If the QShell is not installed, you can access Attunity Connect files (such as the log files) and view and edit them using the following CPY command, to copy the file to the native file directory of the OS/400 operating system:

```
CPY OBJ('/ac/def/nav.log')
    TOOBJ('/qsys.lib/ac.lib/tmp.lib/nav.file/nav.mbr')
    DTAFMT(*TEXT)
```

❖ DTAFMT parameters must be specified, to preserve the file format.

After copying the file, use EDTF to view and edit the file.

